

PATENT CLAIMS

1. A turbine engine, a gas turbine in particular, having at least one compression stage, having one rotor per compression stage and multiple turbine blades positioned side by side in the circumferential direction of a rotor, each turbine blade having a blade root, each turbine blade being securable via the blade root in a retainer groove which extends in the circumferential direction of the rotor, each turbine blade being insertable with its blade roots into the retainer groove via a filling groove, and the width of the filling groove being adapted to the width of the blade roots,
characterized in that the width of the blade roots (13, 14) and the width of the one or each filling groove (17) is greater in the circumferential direction than one-half of the width of a desired, nominal blade pitch (18), a first number of turbine blades (11) having a desired, nominal blade pitch (18) being replaced in the area of the one or each filling groove (17) by a second number of turbine blades (12) having an increased blade pitch (19), and the first number being greater than the second number.
2. The turbine engine as recited in Claim 1,
characterized in that multiple filling grooves (17) are uniformly distributed over the circumference of the rotor (10), the width of each filling groove (17) being greater in the circumferential direction than one-half of the width of a desired, nominal blade pitch, and a first number of turbine blades (11) having a desired, nominal blade pitch being replaced in the area of each filling groove (17) by a second number of turbine blades (12) having an increased blade pitch, the first number being greater than the second number.
3. The turbine engine as recited in Claim 2,
characterized by two filling grooves facing one another diametrically.
4. The turbine engine as recited in one or more of Claims 1 through 3,
characterized in that three turbine blades (11) having a desired, nominal blade pitch are replaced in the area of the one or each filling groove by two turbine blades (12) having an increased blade pitch.

5. The turbine engine as recited in one or more of Claims 1 through 4, characterized in that the turbine blades (12) having an increased blade pitch have an enlarged platform area (20) in the circumferential direction compared to the turbine blades (11) having a desired, nominal blade pitch.

6. The turbine engine as recited in one or more of Claims 1 through 5, characterized in that the width of the filling groove (17) in the circumferential direction corresponds approximately to one-half of the width of the increased blade pitch.

7. A rotor for a compression stage of a turbine engine, a gas turbine in particular, having multiple turbine blades positioned side by side in the circumferential direction of the rotor, each turbine blade having a blade root, each turbine blade being insertable with its blade roots into the retainer groove via at least one filling groove, and the width of the filling groove being adapted to the width of the blade roots, characterized in that the width of the blade roots (13, 14) and the width of the one or each filling groove (17) is greater in circumferential direction than one-half of the width of a desired, nominal blade pitch (18), a first number of turbine blades (11) having a desired, nominal blade pitch (18) being replaced in the area of the one or each filling groove (17) by a second number of turbine blades (12) having an increased blade pitch (19), and the first number being greater than the second number.

8. The rotor as recited in Claim 7, characterized in that multiple filling grooves (17) are uniformly distributed over the circumference of the rotor (10), the width of each filling groove (17) being greater in the circumferential direction than one-half of the width of a desired, nominal blade pitch, and a first number of turbine blades (11) having a desired, nominal blade pitch being replaced in the area of each filling groove (17) by a second number of turbine blades (12) having an increased blade pitch, the first number being greater than the second number.

9. The rotor as recited in Claim 8, characterized by two filling grooves facing one another diametrically.

10. The rotor as recited in one or more of Claims 7 through 9, characterized in that three turbine blades (11) having a desired, nominal blade pitch are replaced in the area of the one or each filling groove by two turbine blades (12) having an increased blade pitch.

11. The rotor as recited in one or more of Claims 7 through 10, characterized in that the turbine blades (12) having an increased blade pitch have an enlarged platform area (20) in the circumferential direction compared to the turbine blades (11) having a desired, nominal blade pitch.

12. The rotor as recited in one or more of Claims 7 through 11, characterized in that the width of the filling groove (17) in the circumferential direction corresponds approximately to one-half of the width of the increased blade pitch.